

10/561,031

olicies apply.

They are available for your review at:

<http://www.cas.org/legal/infopolicy.html>

=>

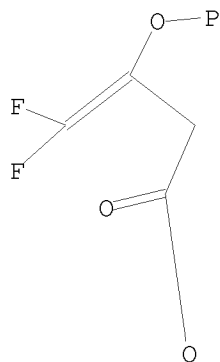
Uploading C:\Program Files\Stnexp\Queries\10561031c.str

L5 STRUCTURE UPLOADED

=> d

L5 HAS NO ANSWERS

L5 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l5 full

REGISTRY INITIATED

Substance data SEARCH and crossover from CAS REGISTRY in progress...

Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

FULL SEARCH INITIATED 13:58:26 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 36 TO ITERATE

100.0% PROCESSED 36 ITERATIONS

1 ANSWERS

SEARCH TIME: 00.00.01

L6 1 SEA SSS FUL L5

L7 1 L6

=> d ibib abs hitstr

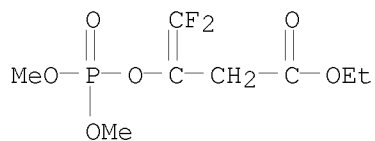
L7 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:29299 CAPLUS
 DOCUMENT NUMBER: 142:113615
 TITLE: Three-step method for producing alkyl
 4,4-difluoroacetoacetate esters
 INVENTOR(S): Gallenkamp, Bernd; Mulder, Lubbertus
 PATENT ASSIGNEE(S): Bayer Cropscience Aktiengesellschaft, Germany
 SOURCE: PCT Int. Appl., 24 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005003077	A1	20050113	WO 2004-EP6607	20040618
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10331496	A1	20050127	DE 2003-10331496	20030711
EP 1644314	A1	20060412	EP 2004-740053	20040618
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
CN 1812959	A	20060802	CN 2004-80018512	20040618
JP 2007506673	T	20070322	JP 2006-518011	20040618
US 20060149091	A1	20060706	US 2005-561031	20051216
IN 2005DN05898	A	20070824	IN 2005-DN5898	20051219
PRIORITY APPLN. INFO.:			DE 2003-10329450	A 20030701
			DE 2003-10331496	A 20030711
			WO 2004-EP6607	W 20040618
OTHER SOURCE(S):			CASREACT 142:113615; MARPAT 142:113615	
AB	Alkyl difluoroacetoacetate esters (e.g., Et 4,4-difluoroacetoacetate) are prepared by: (A) a reaction of alkyl 4-chloro-4,4-difluoroacetoacetates (e.g., Et 4-chloro-4,4-difluoroacetoacetate) with trialkyl phosphites P(OR ₁) ₃ (R ₁ = C ₁ -4 alkyl; e.g., tri-Me phosphite) giving phosphate esters F ₂ C:C[OP(:O)(OR ₁) ₂]CH ₂ CO ₂ R [R = alkyl; e.g., Et 3-[(dimethoxyphosphoryl)oxy]-4,4-difluorobut-3-enoate]; (B) the step (A) phosphate esters are reacted with an amine HN(R ₂)R ₃ (R ₂ , R ₃ = H, C ₁ -4 alkyl; e.g., diisopropylamine) to give enamines F ₂ C:C[N(R ₂)R ₃]CH ₂ CO ₂ R [e.g., Et 3-(diisopropylamino)-4,4-difluorobut-3-enoate]; and (C) acid (e.g., aqueous HCl) hydrolysis of the step (B) enamines.			
IT	823234-80-6P RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (in a three-step method for producing alkyl 4,4-difluoroacetoacetate esters)			
RN	823234-80-6 CAPLUS			
CN	3-Butenoic acid, 3-[(dimethoxyphosphinyl)oxy]-4,4-difluoro-, ethyl ester			

10/923,271

(CA INDEX NAME)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=>

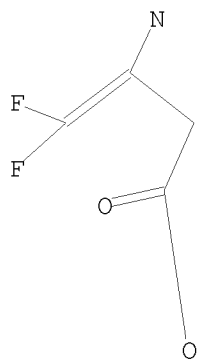
Uploading C:\Program Files\Stnexp\Queries\10561031d.str

L8 STRUCTURE UPLOADED

=> d

L8 HAS NO ANSWERS

L8 STR



Structure attributes must be viewed using STN Express query preparation.

=> s 16 full

L9 1 L6

=> d ibib abs hitstr

L9 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:29299 CAPLUS

DOCUMENT NUMBER: 142:113615

TITLE: Three-step method for producing alkyl 4,4-difluoroacetoacetate esters

INVENTOR(S): Gallenkamp, Bernd; Mulder, Lubbertus

PATENT ASSIGNEE(S): Bayer Cropscience Aktiengesellschaft, Germany

SOURCE: PCT Int. Appl., 24 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005003077	A1	20050113	WO 2004-EP6607	20040618
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10331496	A1	20050127	DE 2003-10331496	20030711
EP 1644314	A1	20060412	EP 2004-740053	20040618
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
CN 1812959	A	20060802	CN 2004-80018512	20040618
JP 2007506673	T	20070322	JP 2006-518011	20040618
US 20060149091	A1	20060706	US 2005-561031	20051216
IN 2005DN05898	A	20070824	IN 2005-DN5898	20051219

PRIORITY APPLN. INFO.:

DE 2003-10329450	A	20030701
DE 2003-10331496	A	20030711
WO 2004-EP6607	W	20040618

OTHER SOURCE(S): CASREACT 142:113615; MARPAT 142:113615

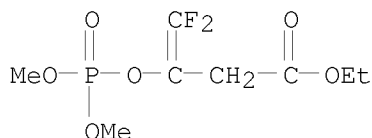
AB Alkyl difluoroacetoacetate esters (e.g., Et 4,4-difluoroacetoacetate) are prepared by: (A) a reaction of alkyl 4-chloro-4,4-difluoroacetoacetates (e.g., Et 4-chloro-4,4-difluoroacetoacetate) with trialkyl phosphites P(OR₁)₃ (R₁ = C1-4 alkyl; e.g., tri-Me phosphite) giving phosphate esters F₂C:C[OP(:O)(OR₁)₂]CH₂CO₂R [R = alkyl; e.g., Et 3-[(dimethoxyphosphoryl)oxy]-4,4-difluorobut-3-enoate]; (B) the step (A) phosphate esters are reacted with an amine HN(R₂)R₃ (R₂, R₃ = H, C1-4 alkyl; e.g., diisopropylamine) to give enamines F₂C:C[N(R₂)R₃]CH₂CO₂R [e.g., Et 3-(diisopropylamino)-4,4-difluorobut-3-enoate]; and (C) acid (e.g., aqueous HCl) hydrolysis of the step (B) enamines.

IT 823234-80-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (in a three-step method for producing alkyl 4,4-difluoroacetoacetate esters)

RN 823234-80-6 CAPLUS

CN 3-Butenoic acid, 3-[(dimethoxyphosphinyl)oxy]-4,4-difluoro-, ethyl ester (CA INDEX NAME)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d 19 ibib abs hitstr

L9 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:29299 CAPLUS
DOCUMENT NUMBER: 142:113615
TITLE: Three-step method for producing alkyl
4,4-difluoroacetoacetate esters
INVENTOR(S): Gallenkamp, Bernd; Mulder, Lubbertus
PATENT ASSIGNEE(S): Bayer Cropscience Aktiengesellschaft, Germany
SOURCE: PCT Int. Appl., 24 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

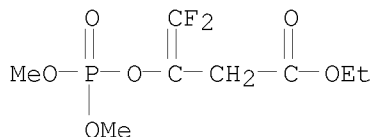
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005003077	A1	20050113	WO 2004-EP6607	20040618
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
DE 10331496	A1	20050127	DE 2003-10331496	20030711
EP 1644314	A1	20060412	EP 2004-740053	20040618
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK			
CN 1812959	A	20060802	CN 2004-80018512	20040618
JP 2007506673	T	20070322	JP 2006-518011	20040618
US 20060149091	A1	20060706	US 2005-561031	20051216
IN 2005DN05898	A	20070824	IN 2005-DN5898	20051219
PRIORITY APPLN. INFO.:			DE 2003-10329450	A 20030701
			DE 2003-10331496	A 20030711
			WO 2004-EP6607	W 20040618

OTHER SOURCE(S): CASREACT 142:113615; MARPAT 142:113615

AB Alkyl difluoroacetoacetate esters (e.g., Et 4,4-difluoroacetoacetate) are prepared by: (A) a reaction of alkyl 4-chloro-4,4-difluoroacetoacetates (e.g., Et 4-chloro-4,4-difluoroacetoacetate) with trialkyl phosphites P(OR₁)₃ (R₁ = C1-4 alkyl; e.g., tri-Me phosphite) giving phosphate esters F₂C:C[OP(:O)(OR₁)₂]CH₂CO₂R [R = alkyl; e.g., Et 3-[(dimethoxyphosphoryl)oxy]-4,4-difluorobut-3-enoate]; (B) the step (A) phosphate esters are reacted with an amine HN(R₂)R₃ (R₂, R₃ = H, C1-4 alkyl; e.g., diisopropylamine) to give enamines F₂C:C[N(R₂)R₃]CH₂CO₂R [e.g., Et 3-(diisopropylamino)-4,4-difluorobut-3-enoate]; and (C) acid (e.g., aqueous HCl) hydrolysis of the step (B) enamines.

10/923,271

IT 823234-80-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(in a three-step method for producing alkyl 4,4-difluoroacetoacetate
esters)
RN 823234-80-6 CAPLUS
CN 3-Butenoic acid, 3-[(dimethoxyphosphinyl)oxy]-4,4-difluoro-, ethyl ester
(CA INDEX NAME)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> s l8 full

REGISTRY INITIATED

Substance data SEARCH and crossover from CAS REGISTRY in progress...

Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

FULL SEARCH INITIATED 14:01:49 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 42 TO ITERATE

100.0% PROCESSED 42 ITERATIONS 2 ANSWERS
SEARCH TIME: 00.00.01

L10 2 SEA SSS FUL L8

L11 2 L10

=> d 1-2 ibib abs hitstr

L11 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:29299 CAPLUS

DOCUMENT NUMBER: 142:113615

TITLE: Three-step method for producing alkyl
4,4-difluoroacetoacetate esters

INVENTOR(S): Gallenkamp, Bernd; Mulder, Lubbertus

PATENT ASSIGNEE(S): Bayer Cropscience Aktiengesellschaft, Germany

SOURCE: PCT Int. Appl., 24 pp.

CODEN: PIXXD2

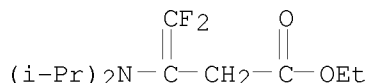
DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005003077	A1	20050113	WO 2004-EP6607	20040618
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10331496	A1	20050127	DE 2003-10331496	20030711
EP 1644314	A1	20060412	EP 2004-740053	20040618
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
CN 1812959	A	20060802	CN 2004-80018512	20040618
JP 2007506673	T	20070322	JP 2006-518011	20040618
US 20060149091	A1	20060706	US 2005-561031	20051216
IN 2005DN05898	A	20070824	IN 2005-DN5898	20051219
PRIORITY APPLN. INFO.:			DE 2003-10329450	A 20030701
			DE 2003-10331496	A 20030711
			WO 2004-EP6607	W 20040618
OTHER SOURCE(S): CASREACT 142:113615; MARPAT 142:113615				
AB Alkyl difluoroacetoacetate esters (e.g., Et 4,4-difluoroacetoacetate) are prepared by: (A) a reaction of alkyl 4-chloro-4,4-difluoroacetoacetates (e.g., Et 4-chloro-4,4-difluoroacetoacetate) with trialkyl phosphites P(OR1)3 (R1 = C1-4 alkyl; e.g., tri-Me phosphite) giving phosphate esters F2C:C[OP(:O)(OR1)2]CH2CO2R [R = alkyl; e.g., Et 3-[(dimethoxyphosphoryl)oxy]-4,4-difluorobut-3-enoate]; (B) the step (A) phosphate esters are reacted with an amine HN(R2)R3 (R2, R3 = H, C1-4 alkyl; e.g., diisopropylamine) to give enamines F2C:C[N(R2)R3]CH2CO2R [e.g., Et 3-(diisopropylamino)-4,4-difluorobut-3-enoate]; and (C) acid (e.g., aqueous HCl) hydrolysis of the step (B) enamines.				
IT 823234-81-7P RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (in a three-step method for producing alkyl 4,4-difluoroacetoacetate esters)				
RN 823234-81-7 CAPLUS				
CN 3-Butenoic acid, 3-[bis(1-methylethyl)amino]-4,4-difluoro-, ethyl ester (CA INDEX NAME)				



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1996:309977 CAPLUS

DOCUMENT NUMBER: 125:87124

ORIGINAL REFERENCE NO.: 125:16457a,16460a

TITLE: Biomimetic base-catalyzed [1,3]-proton shift reaction.
 A practical synthesis of
 β -fluoroalkyl- β -amino acids

AUTHOR(S): Soloshonok, Vadim A.; Kukhar, Valery P.

CORPORATE SOURCE: Natl. Inst. Res., Inst. Nagoya, Nagoya City, 462,
Japan

SOURCE: Tetrahedron (1996), 52(20), 6953-6964

CODEN: TETRAB; ISSN: 0040-4020

PUBLISHER: Elsevier

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 125:87124

AB An efficient approach to practical synthesis of
 β -fluoroalkyl- β -amino acids is described. The method consists
 in the reducing reagent-free base-catalyzed biomimetic transamination
 reaction between fluorinated β -keto carboxylic esters and
 benzylamine. This transformation involves two sequential base-catalyzed
 [1,3]-proton transfers giving rise to corresponding N-benzylidene derivs.
 as the products of final thermodyn. equilibration, directed by the
 electron-withdrawing character of fluoroalkyl groups. Opportunity for
 catalytic enantiocontrolled synthesis of targeted β -amino acids with
 application of monochiral base, as a catalyst for these isomerizations, is
 demonstrated.

IT 178381-17-4P

RL: SPN (Synthetic preparation); PREP (Preparation)

(synthesis of fluoroalkyl β -amino acids via isomerization of
 benzyl enamines)

RN 178381-17-4 CAPLUS

CN 3-Butenoic acid, 4,4-difluoro-3-[(phenylmethylene)amino]-, methyl ester
 (CA INDEX NAME)

